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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,565	09/15/1999	JIN LU	PHA-23.775	7621

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EXAMINER

MAHMOUDI, HASSAN

ART UNIT PAPER NUMBER

2165

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/396,565

Applicant(s)

LU, JIN

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 19 and 21-25 is/are rejected.
- 7) ☒ Claim(s) 9 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's Request for Continued Examination (RCE) submission filed on 13-July-2005 has been entered. As a result, the "After Final" amendment filed on 23-June-2005 has been entered for the continued examination of this application.

Remarks

2. In response to communications filed on 23-June-2005, claims 1, 12 and 24-25 are amended per applicant's request. Claims 1-25 are presently pending in the application, of which, claims 1, 12 and 23-25 are presented in independent form.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that said subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 10-19 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankovitz (U.S. Patent No. 5,949,492) in view of Zuppich (U.S. Patent No. 6,698,654), and further in view of Kawagishi et al (U.S. Patent No. 5,798,507.)

As to claim 1, Mankovitz teaches an apparatus for use in conjunction with a host device having a receptacle associated therewith (see Abstract), the apparatus comprising:

a removable card adaptable for insertion into the receptacle of the host device (see column 15, lines 63-67, and see figure 69), the removable card including processor (see figure 69) for running at least one application (see column 44, lines 53-66), and wherein an agent program is downloadable from the removable card to the host device (see column 45, lines 3-28), such that the agent program runs on a processor of the host device and controls communication between the application running on the processor of the removable card and an application running on the processor of the host device (see column 46, line 59 through column 47, line 7.)

Mankovitz does not teach an application that is separate from an application of the host device.

Zuppich teaches a method of interfacing with data storage card (see Abstract), in which he teaches the removable card including processor (see figure 6, and see column 4, lines 52-53, where "a removable card including processor" is read on "smart card") for running at

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least one application that is separate from an application of the host device (see column 16, lines 61 through column 17, line 8.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mankovitz to include an application that is independent of the host device.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mankovitz by the teaching of Zuppich, because including an application that is independent of the host device, would permit the host processor to be dynamically reconfigured for the application(s) represented by the data streams in a manner which is totally independent of conventional operating systems, where one of several applications contained in the removable card (smart card) can interface with different applications on the host device, as taught by Zuppich (see column 16, lines 61 through column 17, line 8.)

Mankovitz as modified, still does not teach a communication protocol is downloadable from the removable card to the host device, where communication is controlled through the known protocol.

Kawagishi et al teaches an IC card reader/writer (See Abstract), in which he teaches a communication protocol is downloaded from the removable card to the host device, where communication is controlled through the known protocol (see column 1, lines 44-54, where it is taught that the "IC card reader/writer receives a command containing protocol information from the host device"; see column 2, lines 33-34, where it is taught that "IC card having a plurality of different protocols"; and see column 11, lines 64-67, where a transmitting means

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is taught for the IC reader/writer to transmit initial information to the host device, based on the protocol coincidence. The Kawagishi patent teaches the protocol being transmitted from the host to the IC card and the card is capable of having a plurality of protocols, and can transmit information to the host. Hence, it would be obvious for the card to transmit (download) one of the communication protocols to the host instead of receiving one from the host.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mankovitz as modified, by the teachings of Kawagishi et al, because having a communication protocol downloaded from the removable card to the host device, where communication is controlled through the known protocol, would enable the removable card to contain different communication protocols, with which its data can be downloaded/transferred to the various host systems, and be able to download the protocol to a particular host system in order to manage/control communications with the host device and control the transfer of data from the removable card's memory to the host device.

As to claims 2 and 13, Mankovitz as modified teaches wherein the processor of the removable card runs a plurality of applications, and further wherein a plurality of agent programs are downloaded to the host device, one for each of the applications running on the processor of the removable card (see Mankovitz, column 3, lines 58-63.)

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As to claims 3 and 14, Mankovitz as modified teaches wherein the processor of the removable card runs a plurality of applications (see Mankovitz, column 3, lines 58-63), and the agent program controls communication between two or more of the applications and at least one application running on the processor of the host device (see Mankovitz, column 46, line 59 through column 47, line 7.)

As to claims 4 and 15, Mankovitz as modified teaches wherein the agent program interacts with an application programming interface (API) of the host device (see Mankovitz, column 28, lines 13-48.)

As to claims 5 and 16, Mankovitz as modified teaches wherein the agent program controls communication between the application running on the processor of the removable card and each of a plurality of applications running on the processor of the host device (see Mankovitz, column 46, line 59 through column 47, line 7.)

As to claims 6 and 17, Mankovitz as modified teaches wherein communications between the agent program and the application running on the removable card are at least partially encrypted (see Mankovitz, column 18, lines 37-65, and see column 24, lines 22-31, where “encrypted” is read on “encoded”.)

As to claims 7 and 18, Mankovitz as modified teaches wherein after insertion of the removable card into the receptacle of the host device, a command channel and a data channel

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are created between the removable card and the host device (see Mankovitz, column 50, lines 9-21.)

As to claims 8 and 19, Mankovitz as modified teaches wherein the processor of the host device runs an agent manager program which receives a message from the application running on the processor of the removable card, the message identifying a particular agent program to be downloaded (see Mankovitz, column 13, lines 49-59), and in response to the message downloads the agent program from a memory of the removable card via the data channel (see Mankovitz, column 15, lines 14-22.)

As to claims 10 and 21, Mankovitz as modified teaches wherein the host device comprises a digital television receiver (see Mankovitz, column 11, lines 1-12, where “receiver” is read on “tuner”), and the application running on the processor of the removable card includes a processing operation for a transport stream (see Mankovitz, column 8, lines 25-53.)

As to claims 11 and 22, Mankovitz as modified teaches wherein the processing operation comprises a decryption operation (see Mankovitz, column 13, lines 56-59, where “decryption” is read on “decoded”).

As to claim 12, Mankovitz teaches a method for use in conjunction with a host device having a receptacle associated therewith (see Abstract), the method comprising the step of:

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adapting a removable card for insertion into the receptacle of the host device (see column 15, lines 63-67, and see figure 69), the removable card including a processor (see figure 69) for running at least one application (see column 44, lines 53-66), and wherein an agent program is downloadable from the removable card to the host device (see column 45, lines 3-28), such that the agent program runs on a processor of the host device and controls communication between the application running on the processor of the removable card and an application running on the processor of the host device (see column 46, line 59 through column 47, line 7.)

Mankovitz does not teach an application that is separate from an application of the host device.

Zuppich teaches a method of interfacing with data storage card (see Abstract), in which he teaches the removable card including processor (see figure 6, and see column 4, lines 52-53, where "a removable card including processor" is read on "smart card") for running at least one application that is separate from an application of the host device (see column 16, lines 61 through column 17, line 8.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mankovitz to include an application that is independent of the host device.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mankovitz by the teaching of Zuppich, because including an application that is independent of the host device, would permit the host processor to be dynamically reconfigured for the application(s) represented by the data

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streams in a manner which is totally independent of conventional operating systems, where one of several applications contained in the removable card (smart card) can interface with different applications on the host device, as taught by Zuppich (see column 16, lines 61 through column 17, line 8.)

For the teaching of “a communication protocol is downloaded from the removable card to the host device, where communication is controlled through the known protocol”, the applicant is directed to the remarks and discussions made in claim 1 above.

As to claim 23, Mankovitz teaches an article of manufacture comprising a machine-readable storage medium containing one or more software programs (see column 8, lines 54-64) which when executed implement (for the remaining steps of this claim, the applicant is kindly directed to remarks and discussions made in claims 1 and 12 above.)

As to claim 24, Mankovitz teaches an apparatus for use in conjunction with a removable card (see Abstract), the apparatus comprising (for the remaining steps of this claim, the applicant is kindly directed to remarks and discussions made in claim 1 above.)

As to claim 25, Mankovitz teaches a method for use in conjunction with a removable card (see Abstract), the method comprising (for the remaining steps of this claim, the applicant is kindly directed to remarks and discussions made in claim 12 above.)

Allowable Subject Matter

5. Claim 9 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

7. The prior art of record, Mankovitz (U.S. Patent No. 5,949,492), Zuppich (U.S. Patent No. 6,698,654), Kawagishi et al (U.S. Patent No. 5,798,507), and Kondou (U.S. Patent No. 5,799,171), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

wherein the agent program after being downloaded to the host device sends a message to the application running on the processor of the removable card via the command channel, the message indicating that the agent program is ready to control communication between the application running on the processor of the removable card and the application running on the processor of the host device, as recited in dependent claims 9 and 20.

Response to Arguments

8. Applicant's arguments filed on 23-June-2005 with respect to the rejected claims in view of the cited references have been fully considered but they are considered moot in view of the new grounds of rejection.

Conclusion

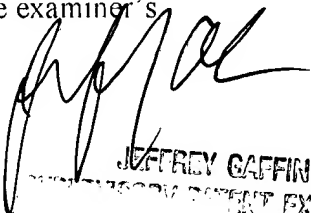
9. The art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to transferring communication protocols between removable cards and host devices in general:

Patent/Pub. No.	Issued to	Cited for teaching
US 6,678,753 B1	Tanaka	IC Cards used with multiple vendors with different protocols.
US 2001/0024066 A1	Fu et al.	Host/Smart card interface and communication protocols.

10. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Gaffin, can be reached at (571) 272-4146.


JEFFERY GAFFIN
SUPERVISOR
PATENT EXAMINER

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September 14, 2005